This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A method for transforming data comprising:

extracting data comprising a plurality of rows wherein each row comprises at least one column from at least one external data source;

storing the data in a buffer;

establishing a first set of pointers to the data;

passing the first set of pointers to the data in the buffer to a first component in order for the first component to apply a first transform to the at least one column in the plurality of rows directly in the buffer without moving the data within the buffer or copying the data to another location within the buffer or to another storage medium;

passing the first set of pointers to the data in the buffer to a second component in order for the second component to apply a second transform to the at least one column in the plurality of rows directly in the buffer without moving the data within the buffer or copying the data to another location within the buffer or to another storage medium; and

loading the data from the buffer to at least one database table.

2. (Cancelled)

3. (Previously Presented) The method of claim 1 wherein a memory location corresponding to a start of a specific row is determined as a function of a row reference number and a row width indicative of a memory offset corresponding to said start of said specific row.

4. (Previously Presented) The method of claim 1 wherein a memory location corresponding to a start of a specific column in a specific row is determined as a function of a row reference number and a row width plus a column offset indicative of a memory offset corresponding to said start of said specific column in said specific row.

5. (Previously Presented)The method of claim 1 wherein the first set of pointers point to the beginning of the rows.

6. (Original) The method of claim 5 wherein the step of establishing first set of pointers that point to the beginning of the rows comprising the sub-step of determining the beginning of a row as a function of the row number and the row width.

7. (Cancelled)

8. (Original) The method of claim 5 further comprising, after the element of storing the data in a buffer and establishing a first set of pointers to the data, establishing a second set of pointers to the data and establishing a third set of pointers to the data.

9. (Original) The method of claim 8 wherein said method further comprises, after the element of passing the first set of pointers to the first component, passing the second set of pointers and the third set of pointers to the first component.

10. (Previously Presented) The method of claim 9 comprising:

the first component receiving the first set of pointers, the second set of pointers, and the third set of pointers;

the first component traversing each row via the first set of pointers;

for each row, the first component designating each row as either a first path row or a second path row based on a criteria for splitting said data;

for each first path row, assigning a pointer from the second set of pointers to point at each such first path row;

for each second path row, assigning a pointer from the third set of pointers to point at each such second path row; and

returning the second set of pointers and the third set of pointers.

11. (Currently amended) A method for transforming data comprising:

extracting data from a source, said data comprising a plurality of rows;

writing the data to a buffer;

creating a plurality of pointers wherein each pointer uniquely points to a single row of data from among the plurality of rows of data in the buffer;

passing the plurality of pointers to a plurality of transformation objects in a path, wherein each transformation object applies a transformation to the data in series, said

transformation objects directly accessing the data in the buffer via the pointers, wherein the passing the plurality of pointers is done without moving the data within the buffer or copying the data to another location within the buffer or to another storage medium;

passing the plurality of pointers to a subsequent one of the transformation objects when there remains transformations objects unexecuted in the path;

reading the data from the buffer; and

loading the data to a destination.

12. (Original) The method of claim 11 wherein the act of enabling the transformation object to transform the data in the buffer comprises the modification of a value in a data cell.

13. (Original) The method of claim 11 wherein the act of enabling the transformation object to transform the data in the buffer comprises the swapping of at least two pointers.

14. (Original) The method of claim 13 wherein the transformation object transforms the data by sorting the data via swapping at least two pointers.

15. (Original) The method of claim 13 wherein the transformation object transforms the data by initializing at least two more arrays to point to select elements of said data.

16. (Currently amended) A computer-readable medium bearing computer-readable instructions for:

extracting data comprising a plurality of rows wherein each row comprises at least one column from at least one external data source;

storing the data in a buffer;

establishing a first set of pointers to the data;

passing the first set of pointers to the data in the buffer to a first component in order for the first component to apply a first transform to the at least one column in the plurality of rows directly in the buffer without moving the data within the buffer or copying the data to another location within the buffer or to another storage medium;

passing the first set of pointers to the data in the buffer to a second component in order for the second component to apply a second transform to the at least one column in the

plurality of rows directly in the buffer without moving the data within the buffer or copying the data to another location within the buffer or to another storage medium; and

loading the data from the buffer to at least one external data destination.

17. (Cancelled)

18. (Previously Presented) The computer-readable medium of claim 16 further comprising computer-readable instructions wherein the first set of pointers point to the beginning of the rows.

19. (Original) The computer-readable medium of claim 18 further comprising computer-readable instructions for, after the element of passing the first set of pointers to the data in the buffer to a first component in order for the first component to transform the data directly in the buffer, passing the first set of pointers to the data in the buffer to a subsequent component in order for the subsequent component to transform the data directly in the buffer.

20. (Original) The computer-readable medium of claim 18 further comprising computer-readable instructions for, after the element of storing the data in a buffer and establishing a first set of pointers to the data, establishing a second set of pointers to the data and establishing a third set of pointers to the data.

21. (Original) The computer-readable medium of claim 20 further comprising, after the element of passing the first set of pointers to the first component, passing the second set of pointers and the third set of pointers to the first component.

22. (Previously Presented) The computer-readable medium of claim 21 further comprising computer-readable instructions comprising:

the first component receiving the first set of pointers, the second set of pointers, and the third set of pointers;

the first component traversing each row via the first set of pointers;

for each row, the first component designating each row as either a first path row or a second path row based on a criteria for splitting said data;

for each first path row, assigning a pointer from the second set of pointers to point at each such first path row;

for each second path row, assigning a pointer from the third set of pointers to point at each such second path row; and

returning the second set of pointers and the third set of pointers.

23. (Currently amended) A system comprising a processor, memory, and instructions for:

inputting a graph describing the data flow among a plurality of components;

extracting data comprising a plurality of rows from at least one external data source;

storing the data in a buffer;

passing a first set of pointers to the data in the buffer to a first component in the plurality of components in order for the first component to transform the data directly in the buffer without moving the data within the buffer or copying the data to another location within the buffer or to another storage medium;

passing the first set of pointers to the remaining components in the plurality of components in the order described in the graph whereby each component performs and operation upon the data in the buffer in the order specified in the graph without moving the data within the buffer or copying the data to another location within the buffer or to another storage medium; and

loading the data from the buffer to at least one external data destination.

24. (Cancelled)

25. (Previously Presented) The system of claim 23 further comprising computer-readable instructions wherein the first set of pointers point to the beginning of the rows.

26. (Original) The system of claim 25 further comprising computer-readable instructions for, after the element of passing the first set of pointers to the data in the buffer to a first component in order for the first component to transform the data directly in the buffer, passing the first set of pointers to the data in the buffer to a subsequent component in order for the subsequent component to transform the data directly in the buffer.

27. (Original) The system of claim 25 further comprising computer-readable instructions for, after the element of storing the data in a buffer and establishing a first set of pointers to the data, establishing a second set of pointers to the data and establishing a third set of pointers to the data.

28. (Original) The system of claim 27 further comprising, after the element of passing the first set of pointers to the first component, passing the second set of pointers and the third set of pointers to the first component.

29. (Previously Presented) The system of claim 28 further comprising computer-readable instructions comprising:

the first component receiving the first set of pointers, the second set of pointers, and the third set of pointers;

the first component traversing each row via the first set of pointers;

for each row, the first component designating each row as either a first path row or a second path row based on a criteria for splitting said data;

for each first path row, assigning a pointer from the second set of pointers to point at each such first path row;

for each second path row, assigning a pointer from the third set of pointers to point at each such second path row; and

returning the second set of pointers and the third set of pointers.